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"Stacked Up Like LaGuardia"

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Commissioner
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at
American Nuclear Society
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Introduction

Good morning ladies and gentlemen. We begin this conference at a time of great expectation: a time when the President and Congress have taken a significant step to jump start new reactor orders in the U.S., and a time when the industry is poised to enter what I have called "the emerging second great bandwagon effect." While this presages a significant chapter in the history of nuclear power, I would like to share with you this morning what I believe are some significant challenges that lie ahead for the U. S. as we enter this new phase in our nation's energy history.

As the title of my speech indicates, I am looking toward the future with some trepidation as to how the NRC and our future applicants will handle the many challenges we may face in the coming years. Today, I would like to discuss my personal views on how the NRC's licensing and budgeting process will play a critical role in the development of new reactor projects. I will also spend some of my time discussing how the anticipated turnover in the upper levels of utility management could impact the future safe operation of the industry we oversee.

Budgeting for Future Challenges

My fellow Commissioners and I have spent the last few weeks focused on reviewing and finalizing the agency's budget for Fiscal Year 2007. As with any budgeting process, the NRC must attempt an educated guess as to its resource needs almost two years into the future. Normally, we do a pretty good job playing this guessing game, but for a variety of factors, this year required more than the usual amount of guesswork. Among all the usual factors, our job was made even more difficult by the rapidly changing environment for new plant orders. This prospect was underscored by President

Bush's recent visit to Calvert Cliffs Nuclear Plant, where he outlined his strong support for the rapid growth and advancement of nuclear power. With the recent passage of the president's energy legislation, which the president will sign into law today, Congress has declared that it, too, shares his vision.

For their part, a number of utilities, either through announced or unannounced efforts, are moving toward submission of combined license applications for new reactors. Additionally, the NRC has received a growing number of inquiries from vendors that may apply for design certification in the next few years. Add to this the potential for early site permit applications, including the recent notification from Southern Company that it intends to submit an early site permit application in the summer of 2006, and it is obvious the NRC will have an extensive workload. That being said, it is incredibly challenging to translate these "ifs" and "maybes" into budgetary dollars and FTE when we have no firm application dates from which to work.

Yet, without concrete information that all this work will materialize, the Commission is in a particularly tough situation. We need to plan for the possibilities I mentioned, but cannot justify huge budgetary increases based on mere hearsay or splashy PowerPoint presentations. As a fiscal conservative who spent my early years on the Commission figuring out how to downsize our agency during a period of perceived nuclear decline, I don't want to overshoot the mark to meet what I would call the "maximum credible order scenario." Yet, in a tight budget environment also, I don't want to undershoot our request given the difficulties associated with obtaining supplemental appropriations from Congress. We will obviously be prepared to handle the few applications that we have been made aware of to date, but beyond that, I think there is some uncertainty as to how the agency would handle an unexpected bow wave of "surprise" applications for combined licenses, design certifications, or early site permits.

The "Stacking Up" Phenomenon

This unpleasant conundrum reminds me of what I like to call the "stacked up like LaGuardia" phenomenon. Air traffic controllers are responsible for ensuring the safe operation of flights while the planes are in the air, as well as during take off and landing. They know they have a limited number of gates with which to accommodate arriving and departing flights and a limited number of people who can arrive at these gates. But they also know that sometimes there are far more planes trying to land than there are available gates and personnel to handle them. Success of flight operations is highly dependent on maintaining the proper timing between arrivals and departures and ensuring that the airlines have all necessary personnel in the right place at the right time. Clearly, it is much easier for them to achieve their safety mission of ensuring safe flight operation if they only have one or two planes in the air. Yet, as we all painfully know, this isn't how the system works. Even the most carefully orchestrated schedules can go out the window when the number of planes increases and unexpected flights enter the picture. What typically results in this situation is a "stacking up" of planes waiting to land and trying to take off. At busy airports, like LaGuardia, this occurs all too frequently and causes delay and frustration for travelers and airport personnel alike.

I want the NRC to avoid a worst case scenario, like those faced by air traffic controllers, with incoming applications "stacked up like LaGuardia." The likelihood of this situation occurring increases dramatically as the number of possible applications for combined licenses, design certifications, and early site permits increases beyond planning assumptions. It is absolutely imperative that we know well in advance if an interested party intends to submit a license application. As with air traffic controllers, we know we have a limited number of resources to draw on to review

these applications and must exercise impeccable timing and planning to ensure that we do not create unnecessary delay while moving forward with these actions.

I can also tell you that the risk of "stacking up" will increase dramatically if the industry uses the same application pattern it followed with license renewal. Initially, the industry as a whole was skeptical that the NRC could successfully review and approve an application for renewal of an operating license. Consequently, there were only one or two licensees bold enough to test the NRC's renewal process. After the agency demonstrated its review process was reasonably efficient and effective, however, we experienced a dramatic influx of renewal requests from a number of licensees. We were forced to do two things in order to manage the situation. First, while maintaining our safety focus, we took numerous steps to streamline our process and reduced our review time to 22 months from docketing to approval. Second, we mandated a policy of "first in-first out" for the handling of applications, while simultaneously limiting the number of license renewal applications we are working on in-house. I would fully expect that if faced with a similar situation in the future, the Commission would mandate the same policy for applications for combined licenses, design certifications, and early site permits. To return to my flight analogy, we only have so many "gates" and so many people who can manage these gates.

Of course, as a fee-based agency, any over-budgeting is passed on to our licensees. This is not an ideal situation. For example, when we plan for review of a design certification or for pre-application activities, we allocate personnel and funds sufficient to ensure a timely review. If these applications are subsequently delayed or withdrawn, as was the case with the ACR-700 and the PBMR, our staffing level remains the same and the cost for it is borne by all of our licensees. Not only is this wasteful of our human resources, but it is also unfair to our licensees. Clearly, the NRC is not the only party that could be dubbed "unpredictable" when it comes to the nuclear arena.

At the end of the day, it is in the best interest of all, if those who are intending to submit future applications to the NRC understand our budgetary and resource constraints and use that understanding to establish and follow realistic timetables. In my opinion, if it is reasonable for Congress and the industry to expect timeliness on the part of the NRC, it is also reasonable for the NRC to expect the same of vendors and licensees. Additionally, at a time when we are faced with a multiplicity of vendors competing for our review time, I believe the NRC must focus its efforts on designs that already have licensee interest rather than on designs that vendors wish to certify in hopes of leveraging reactor orders. We are well beyond the time when the agency can waste resources certifying designs that will never be ordered in the United States. We must focus on those designs that have a realistic possibility of being ordered and built.

That having been said, we need to do a better job communicating these expectations to our licensees, and particularly to the vendors. If we are alerted to an incoming application three to five years in advance, we can make the necessary adjustments to our budget proposal and staffing plans. If we have a letter of intent in hand, we are far more likely to receive the necessary funding increases from Congress. For us to meet our safety mission, ensuring the safe operation of both the currently operating fleet of reactors and those that may be built in the future, we need utilities and vendors to be candid with us about their realistic intentions.

The Pendulum Swings

Next, I would like to switch gears and discuss the potential impact of recent and future changes in utility management personnel. In the past few decades, we have observed a swinging of the

pendulum a number of times between utility managers who come from a nuclear background and those who are more grounded in finance or law. As this pendulum appears to be on the move once again, I would like to share a few thoughts with you regarding this shift.

Prior to the accident at Three Mile Island in 1979, it was rare for a utility Chief Executive Officer to have risen from a nuclear operations background. More often than not, CEOs were of a more general technical background or had business or legal expertise. This generation of managers seemed to believe that nuclear plants were "just another way to boil water." The accident at TMI and the difficult period that followed had a significant impact on this mindset. In large part, it was TMI that caused the management pendulum to swing in the opposite direction. From this mishap emerged a new breed of utility leaders that were both "battle hardened" from dealing with the TMI action items and sensitive to the critical importance of nuclear safety.

One CEO in particular deserves an honorable mention for the key role he played during this time period. Chairman of the Board and CEO of Duke Power, Bill Lee, was a symbol of the reform the nuclear industry accomplished in the 1980s and 90s. Following the accident at TMI, Mr. Lee, in his role as Duke's president, led the creation of the Institute of Nuclear Power Operations, which strengthened and standardized the industry's nuclear safety and training programs. Later, as Duke's Chairman of the Board, he again took the lead for the industry, organizing the World Association of Nuclear Operators after the 1986 Chernobyl disaster in the Soviet Union. Both of these organizations did much to restore public confidence in nuclear power as a safe source of energy. This was by no means an easy task, and efforts to maintain public confidence continue even today.

Lee and his contemporaries learned the hard way what a delicate undertaking it can be to maintain a fair balance between ensuring financial profit of a nuclear operation while at the same time ensuring that its safety is preserved. These CEOs understood that a nuclear plant required special "care and feeding," and that operation of these plants could not be approached with the fossil plant mentality of "operate it until it breaks and then fix it."

They also struggled through the period of fear and suspicion that followed the TMI accident and saw firsthand how important candid communication with the public can be.

Today, we are in the midst of a transitional time when many of these leaders have left the industry, and it appears that the pendulum will once again swing back to an era where a large number of these senior managers may not hail from a nuclear background. A new generation of CEOs will be managing the future of the industry, and will be facing an entirely different backdrop as they enter their new positions. These men and women will run their organizations during a period of time when the nation's nuclear fleet is operating near peak performance. Reactors today are running at a much higher capacity than in the past, and with the notable exception of Davis-Besse, we have enjoyed a period of increasingly safe operations when compared to the 80s and 90s. This situation, although preferable from my perspective as a regulator, can be deceptive to the unwary.

It is essential that new industry leaders understand the inherent pitfalls of running a nuclear power plant. As I mentioned before, these plants must have safety infused into their systems and procedures, as well as into the minds of the employees that operate them. Our licensees must be proactive about discovering potential equipment problems early on to prevent equipment failures. Short term goals based on the bottom line cannot be allowed to overtake safety goals. As I have said on many occasions, good performers save money. I don't have to highlight how expensive poor performance has been for certain utilities.

These new utility leaders will also have to familiarize themselves with the way in which the NRC interacts with its licensees. I know full well that much of the industry believes that we are far too intrusive in our regulation of their nuclear facilities. Compared with other federal and state agencies, the NRC is probably a greater presence in the daily workings of our licensees than other regulators may be. But it is precisely this strong presence that enables us to fulfill our safety mission of ensuring protection of public health and safety.

Please do not get me wrong. I know that these executives with their extraordinary credentials can live up to my expectations. Indeed, one would expect me of all people to say that, given the fact that I came into my current position seven years ago as an attorney with a limited understanding of nuclear technologies. It would certainly be the "pot calling the kettle black" if I implied this would or could not be done. I know better than most the steep learning curve necessary to understand this technology, its promise, and its pitfalls. A strong commitment to learning about nuclear safety must certainly have been in the mind of Bill Lee when he helped establish INPO. Programs offered by INPO, like its "Reactor Technology Course for Utility Executives," offer an invaluable forum for learning and discussion.

In the end, this industry has had and will continue to have a number of key participants who do not come from a nuclear background. The clear need, however, is to ensure that this diversity of backgrounds enhances safe operation, rather than degrades it. Dedication to understanding nuclear safety and nuclear technology must be foremost in the mind of all future leaders in this arena. We cannot demand otherwise.

Conclusion

In summary, I can confidently say that the Commission is working hard to prepare for the future, whatever it may entail. We are planning to the best of our ability, but in my opinion, it will be the new generation of industry management that will help us avoid the "stacking up" phenomenon of which I spoke. I am positive that continued productive relationships between the NRC and industry leadership will help prevent us from becoming the "LaGuardia" we all hope the NRC will never be. Thank you very much.